



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,972	04/26/2001	Robert G. Emberty	TUC9-2001-0025-US1	9810
34282	7590	03/22/2005	EXAMINER	
QUARLES & BRADY STREICH LANG, LLP ONE SOUTH CHURCH AVENUE SUITE 1700 TUCSON, AZ 85701-1621			SHARON, AYAL I	
			ART UNIT	PAPER NUMBER
			2123	

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,972

Applicant(s)

EMBERTY ET AL.

Examiner

Ayal I Sharon

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 1/4/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-19 is/are allowed.
- 6) ☒ Claim(s) 20, 25 and 30 is/are rejected.
- 7) ☒ Claim(s) 21-24 and 26-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Introduction

1. Claims 14-30 of U.S. Application 09/843,972 are presented for examination.
Claims 14-19 are unchanged. Claims 1-13 have been cancelled in the amendment filed on 1/4/2005 (see p.2). Claims 20-30 are new.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
3. The prior art used for these rejections is as follows:
4. Teow, K.S. "Definitions of Managed Objects for the Fabric Element in Fibre Channel Standard". Brocade Communications Systems. © The Internet Society. May 1, 2000. (Henceforth referred to as "**Sun**")
5. The claim rejections are hereby summarized for Applicant's convenience. The detailed rejections follow.
6. **Claims 20-30 are rejected under 35 U.S.C. 102(a) as being anticipated by Teow.**
7. In regards to Claim 20,

20. (new) A method for emulating a fibre channel port, comprising the steps of:
receiving a communication request including a fibre channel-standard address;

Teow teaches (See Section 2.1. "Management View of a Fabric Element",
emphasis added):

From the management perspective, it is helpful to view a Fabric Element to be consisting of multiple "modules". **Each module is a grouping, either physical or logical**, of one or more ports that may be managed as a sub-entity within the Fabric Element.

This module mapping is recommended but optional. A vendor may elect to put all ports into a single module, or to divide the ports into modules that do not match physical divisions.

Examiner interprets the "module mapping" as corresponding to the mapping of logical ports to physical ports.

converting the fibre-channel-standard address to a physical address corresponding to a peripheral device not currently connected to a fabric port;

fetching the first peripheral device; and

coupling the peripheral device to the fabric port.

Moreover, Teow also teaches (See Section 2.1. "Management View of a Fabric Element", emphasis added):

... Each module is uniquely identified by a module number in the range of 1 through fcFeModuleCapacity inclusive. **Modules may come and go without causing a management reset (of sysUpTime)**, and may be sparsely numbered within the Fabric Element.

... The object fcFeModuleFxpPortCapacity indicates the maximum number of ports that a given module may contain. The value of fcFeModuleFxpPortCapacity must not change for a given module. **However, a module may be deleted from the Fabric Element and replaced with a module containing a different number of ports.** The value of fcFeModuleLastChange will indicate that a change took place.

Each port within the Fabric Element is uniquely identified by a combination of module index and port index, where port index is an integer in the range (1..fcFeModuleFxpPortCapacity). As with modules

within a Fabric Element, ports within a module may be sparsely numbered. That is the port numbering is not required to be contiguous. **Likewise, ports may come and go within a module without causing a management reset.**

Examiner interprets the reference to “modules coming and going” and “ports coming and going” as corresponding to the coupling and uncoupling of peripheral devices to the ports.

8. In regards to Claim 25,

25. (new) An article of manufacture including a data storage medium, said data storage medium including a set of machine readable instructions that are executable by a processing device to implement an algorithm, said algorithm comprising the steps of:

receiving a communication request including a fibre channel-standard address;

Teow teaches (See Section 2.1. “Management View of a Fabric Element”, emphasis added):

From the management perspective, it is helpful to view a Fabric Element to be consisting of multiple “modules”. **Each module is a grouping, either physical or logical,** of one or more ports that may be managed as a sub-entity within the Fabric Element.

This module mapping is recommended but optional. A vendor may elect to put all ports into a single module, or to divide the ports into modules that do not match physical divisions.

Examiner interprets the “module mapping” as corresponding to the mapping of logical ports to physical ports.

converting the fibre-channel-standard address to a physical address corresponding to a peripheral device not currently connected to a fabric port;

fetching the first peripheral device; and

coupling the peripheral device to the fabric port.

Moreover, Teow also teaches (See Section 2.1. "Management View of a Fabric Element", emphasis added):

... Each module is uniquely identified by a module number in the range of 1 through fcFeModuleCapacity inclusive. **Modules may come and go without causing a management reset (of sysUpTime),** and may be sparsely numbered within the Fabric Element.

... The object fcFeModuleFxpPortCapacity indicates the maximum number of ports that a given module may contain. The value of fcFeModuleFxpPortCapacity must not change for a given module. **However, a module may be deleted from the Fabric Element and replaced with a module containing a different number of ports.** The value of fcFeModuleLastChange will indicate that a change took place.

Each port within the Fabric Element is uniquely identified by a combination of module index and port index, where port index is an integer in the range (1..fcFeModuleFxpPortCapacity). As with modules within a Fabric Element, ports within a module may be sparsely numbered. That is the port numbering is not required to be contiguous. **Likewise, ports may come and go within a module without causing a management reset.**

Examiner interprets the reference to "modules coming and going" and "ports coming and going" as corresponding to the coupling and uncoupling of peripheral devices to the ports.

9. In regards to Claim 30,

30. (new) A method for emulating a fibre channel port, comprising the steps of:
 receiving a communication request including a fibre channel-standard address;

Teow teaches (See Section 2.1. "Management View of a Fabric Element", emphasis added):

From the management perspective, it is helpful to view a Fabric Element to be consisting of multiple "modules". **Each module is a grouping, either physical or logical,** of one or more ports that may be managed as a sub-entity within the Fabric Element.

This module mapping is recommended but optional. A vendor may elect to put all ports into a single module, or to divide the ports into modules that do not match physical divisions.

Examiner interprets the “module mapping” as corresponding to the mapping of logical ports to physical ports.

converting the fibre-channel-standard address to a physical address corresponding to a peripheral device not currently connected to a fabric port;

identifying the physical address as being associated with data residing within a temporary storage device; and

fetching the data from the temporary storage device.

Moreover, Teow also teaches (See Section 2.1. “Management View of a Fabric Element”, emphasis added):

... Each module is uniquely identified by a module number in the range of 1 through fcFeModuleCapacity inclusive. **Modules may come and go without causing a management reset (of sysUpTime),** and may be sparsely numbered within the Fabric Element.

... The object fcFeModuleFxPortCapacity indicates the maximum number of ports that a given module may contain. The value of fcFeModuleFxPortCapacity must not change for a given module. **However, a module may be deleted from the Fabric Element and replaced with a module containing a different number of ports.** The value of fcFeModuleLastChange will indicate that a change took place.

Each port within the Fabric Element is uniquely identified by a combination of module index and port index, where port index is an integer in the range (1..fcFeModuleFxPortCapacity). As with modules within a Fabric Element, ports within a module may be sparsely numbered. That is the port numbering is not required to be contiguous. **Likewise, ports may come and go within a module without causing a management reset.**

Examiner interprets the reference to "modules coming and going" and "ports coming and going" as corresponding to the coupling and uncoupling of peripheral devices to the ports.

Response to Amendment

Re: Drawings

10. Examiner has found Applicants' argument (amendment filed 1/4/2005, p.10) pertaining to drawing number 5 to be persuasive. Examiner has withdrawn the objection to the drawing.

Re: Double Patenting

11. Applicants have filed a Terminal Disclaimer in order to overcome the Double Patenting rejections based on U.S. Patent 6,754,768. Examiner is therefore withdrawing all the Double Patenting rejections.

Re: Claim Rejections - 35 USC § 103

12. Applicants have filed an additional Terminal Disclaimer in order to overcome the 35 USC §103 rejections, which are based on U.S. Patent 5,970,030 (the Dimitri reference).
13. Applicants have declared (amendment filed 1/4/2005, p.9) that:

Pursuant to MPEP Sec. 706.02(1)(2), on behalf of the applicants, the undersigned hereby declares that the present application (Ser. No. 09/843,972) and U.S. Patent No. 5,970,030 were, at the time the invention of Ser. No. 09/843,972 was made, and

currently still are, commonly owned by International Business Machines Corporation.

A terminal disclaimer is attached pursuant to Rule 130 (a) (1).

14. Examiner finds this to be sufficient evidence for withdrawing all 35 USC §103(a) rejections based on the Dimitri reference, U.S. Patent 5,970,030, as required under 35 U.S.C. §103(c) and 37 CFR 1.130(a).

Re: New Claims

15. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the "Two potential solutions presented in the instant application ..." on p.13 of the amendment filed on 1/4/2005) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Allowable Subject Matter

16. The following is a statement of reasons for the indication of allowable subject matter for claims 14-19:

17. The closest relevant prior art is as follows:

- a. Sun Microsystems Inc. Sun StorEdge(tm) SCSI Target Emulation (STE)
1.1 Release Notes. Revision A. Part No. 806-1948-10. August 1999.
(Henceforth referred to as "**Sun**")

b. Dimitri et al., U.S. Patent 5,970,030. (Henceforth referred to as "**Dimitri**").

18. Independent claims 14 and 17 contain the following limitation:

forming a first association of a plurality of commands for instructing a plurality of different types of memory elements which the host computer expects the library to be according to a fibre channel protocol;

Neither Sun nor Dimitri teach "a plurality of different types of memory elements".

In fact, Dimitri teaches away from this limitation (see col.4, lines 38-41) by teaching that:

As described above, RAID is a "redundant array of inexpensive disk drives" and stores data and parity amongst the data storage drives in such a manner that, should one data storage drive fail, the remainder may continue to operate without loss of any data."

Dimitri does not expressly teach "a plurality of different types of memory elements". The Sun reference also does not expressly teach "a plurality of different types of memory elements".

Also, unlike the present application, neither of these references teach the following limitation:

identifying the type of memory element which the host computer expects the library to be;

19. Moreover, the Double Patenting rejections of Claims 14 and 17 in view of Dimitri reference have been withdrawn due to the Terminal Disclaimer filed by the Applicants and the Declaration under 37 C.F.R. 1.130(a) on p.9 of the amendment filed 1/4/2005.

20. Dependent claims 15-16 and 18-19 depend from allowable claims 14 and 17.

21. Claims 21-24 and 26-29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ayal I. Sharon whose telephone number is

Art Unit: 2123

(571) 272-3714. The examiner can normally be reached on Monday through Thursday, and the first Friday of a biweek, 8:30 am – 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Teska can be reached at (571) 272-3716.

Any response to this office action should be faxed to (703) 872-9306, or mailed to:

USPTO
P.O. Box 1450
Alexandria, VA 22313-1450

or hand carried to:

USPTO
Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Tech Center 2100 Receptionist, whose telephone number is (571) 272-2100.

Ayal I. Sharon

Art Unit 2123

March 11, 2005



KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER